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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,740	09/15/1999	HIROYUKI SHINBATA	35.C13834	7882

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NEW YORK, NY 10112

EXAMINER

BRINICH, STEPHEN M.

ART UNIT PAPER NUMBER

2624

DATE MAILED: 11/18/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.



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Commissioner for Patents

## Office Action Summary

Application No.

09/396,740

Applicant(s)

SHINBATA ET AL.

Examiner

Stephen M Brinich

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-28,31-34,37-40,42-45,47-50,52 and 53 is/are allowed.
- 6) ☒ Claim(s) 29,30,35,36,41,46 and 51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 35-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 35-36 each recites a mathematical algorithm without requiring any identifiable means or method element.

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 29-30, 41, 46, & 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Matama (6101273).

Re claims 29, 41, 46, & 51, Matama '273 discloses (Figure 14; column 20, lines 8-34) an image signal processing system in which a smoothed image signal (an unsharp signal from low pass filter 30) is obtained, a high frequency component signal is obtained (by subtracting the low pass filtered unsharp signal from the original signal at subtractor 31), the smoothed signal gradation is converted on the basis of a conversion curve (the signal generated by look up table 19 is a function of the input

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signal), and the obtained high frequency component is added to the gradation converted signal (adder 20).

Re claim 30, the obtained high frequency component output by subtractor 31 is modified in amplitude in accordance with its pixel value by being multiplied by a coefficient at amplifier 32 prior to being added to the gradation converted signal.

***Allowable Subject Matter***

5. Claims 19-28, 31-34, 37-40, 42-45, 47-50, & 52-53 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 19, 31, 33, 37, 39, 42-44, 47-49, & 52-53 (and dependent claims 20-26, 32, 34, & 38), the art of record does not teach or suggest the recited elements of subjecting an image to gradation conversion, extracting a high-frequency image component and converting the magnitude of the high-frequency image component based on information concerning an inclination of a gradation conversion curve.

Re claims 27, 40, 45, & 50 (and dependent claim 28), the art of record does not teach or suggest the recited combination of first smoothing of an original image, extraction of a high-frequency component as the difference between a smoothed and non-smoothed original image, gradation conversion of the

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original image, second smoothing of the gradation-converted image, and addition of the extracted high-frequency component to the second smoothed image.

***Response to Arguments***

7. Applicant's arguments filed 25 August 2003 have been fully considered but they are not persuasive.

Applicant argues (Paper #8: page 20, line 13 - page 23, line 17) that independent claims 19 is patentable over the Matama reference, and briefly asserts (Paper #8: page 24, lines 1-4) that the other independent claims 27, 29, 31, 33, 35-37, & 39-53 are patentable over Matama for similar reasons.

While Examiner concurs concerning claim 19, and also with respect to claims 27, 31, 33, 37, 39-40, 42-45, 47-51, & 52-53 (as described above), Examiner differs with respect to claims 29, 35-36, 41, 46, & 51.

Re claims 35-36, these claims have been rejected as directed to non-statutory subject matter, an issue not addressed in Applicant's arguments.

Re claims 29, 41, 46, & 51, Applicant describes (Paper #8: page 23, lines 1-12) a set of elements in claim 19 (and, as argued at page 24, lines 1-4, other independent claims) that are said to define the present invention over the Matama reference. In particular, Applicant notes that the "conversion unit

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converts the magnitude of the amplitude of the high-frequency component, based on information concerning the inclination of the gradation conversion curve".

While Examiner concurs with respect to claim 19 and a number of other independent claims, this feature does not appear to be required by claims 29, 41, 46, & 51. Other features described by Applicant appear to be readable on the Matama reference as described in paragraph 4 supra.

#### **Conclusion**

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 703-305-4390. The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2600 Customer Service center at 703-306-0377.

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 703-308-7452.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 703-872-9306.

Stephen M Brinich  
Examiner  
Art Unit 2624

smb *Smb*  
November 6, 2003



THOMAS D.  
~~TONY~~ LEE  
PRIMARY EXAMINER